

The presentation will be for the **Council of Engineering and Scientific Society Executives (CESSE) conference**. I will be one of four presenters in the session with the title presented here. There will be a moderator, and speakers involved with the **Microbe World** podcast, sponsored by the **American Society for Microbiology (ASM)** for public education purposes, and the **InsideUtah** podcast, a podcast focused on public affairs and advocacy (with an emphasis on science related issues).

I will have 10-15 minutes to highlight the various podcasts coming from NASA and how they support NASA's communications goals, and play quick samples of the podcasts for the audience. I speak third, so the "what is a podcast" question will have been answered.

I was asked to answer the following during the presentation:

Whose idea was it to start podcasting?

Were there any organizational hurdles to overcome?

How does podcasting fit in with your organization's goals?

How do you market your podcasts?

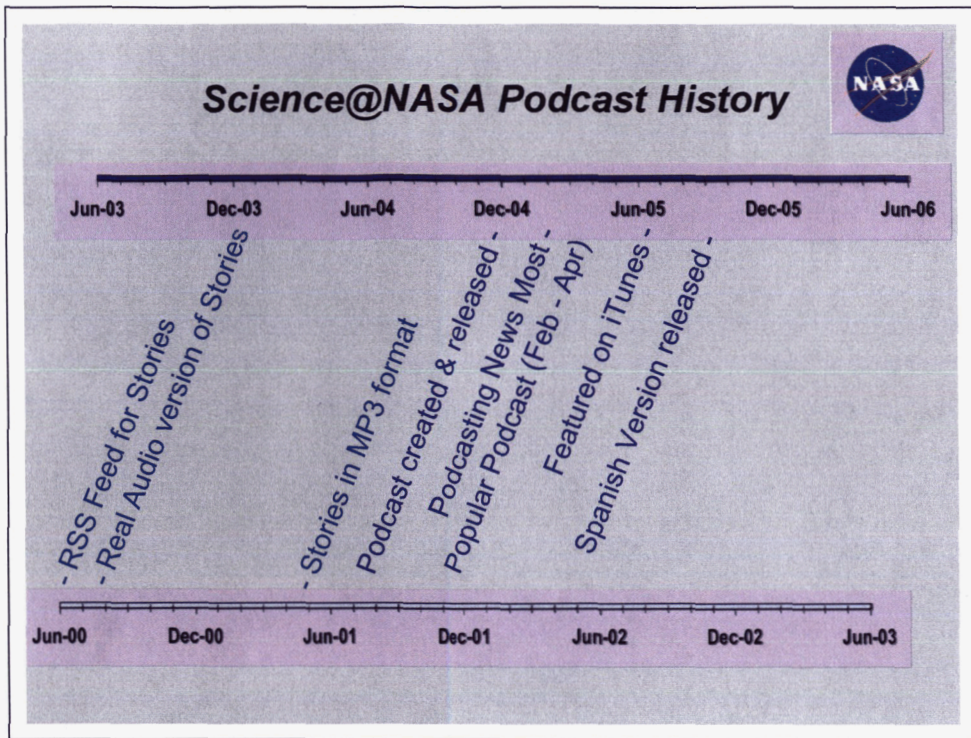
Who is your target audience?

What has been the impact of podcasting on your organization?

What is some of the feedback you have heard about the podcasts?

What are some unintended or unanticipated results of your podcasting efforts?

What are some tips or advice for producing podcasts?



Whose idea was it to start podcasting?

Were there any organizational hurdles to overcome?

I created the first NASA (and first Federal) podcast in Dec 04. We nearly had a podcast in May 2001, if such a thing had existed.

Because of the history, the transition to podcasting was simple for Science@NASA.



## ***The Science@NASA Podcast***



- Established content
- Reuse of content
- CMS and scripts automate RSS creation
- Minimal Production
- Designed for low-bandwidth streaming
- Produced by Marshall Space Flight Center's Science and Mission Systems Directorate

Regularly produced, interesting content, already available in MP3

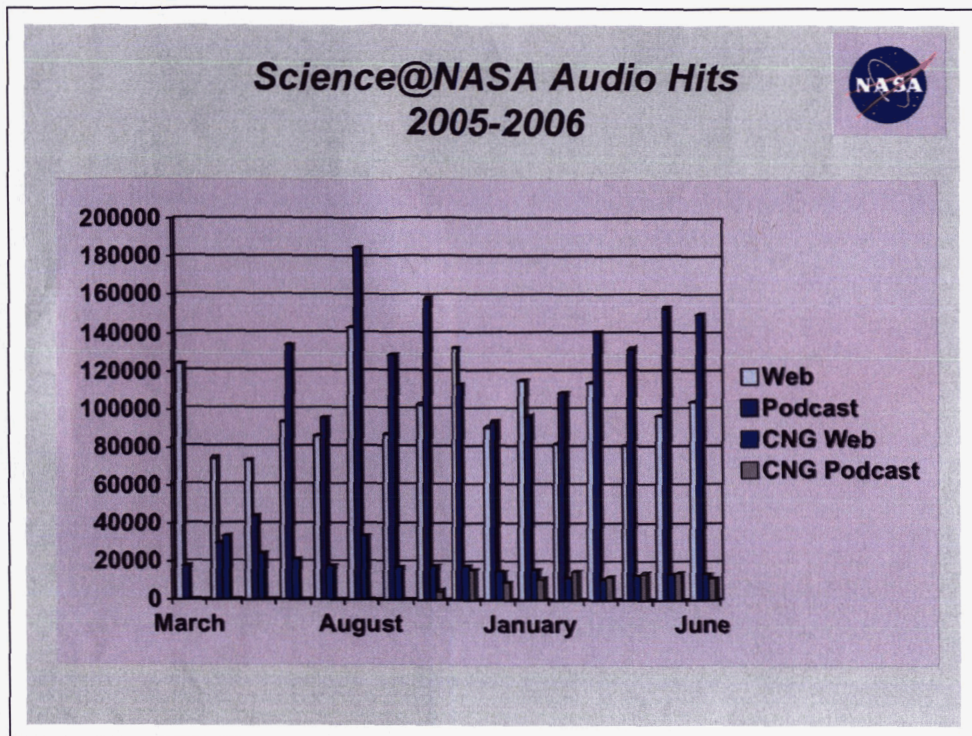
Content is conversational, but designed primarily for web use.

CMS and scripts automate RSS creation

Production quality quite low: one man, single voice, shareware, no studio, no music.

Designed for low-bandwidth streaming (32 kbps encoding) as well as download.

Adding the podcast was simple and effective. However, the low cost path resulted in a non-optimal user experience.

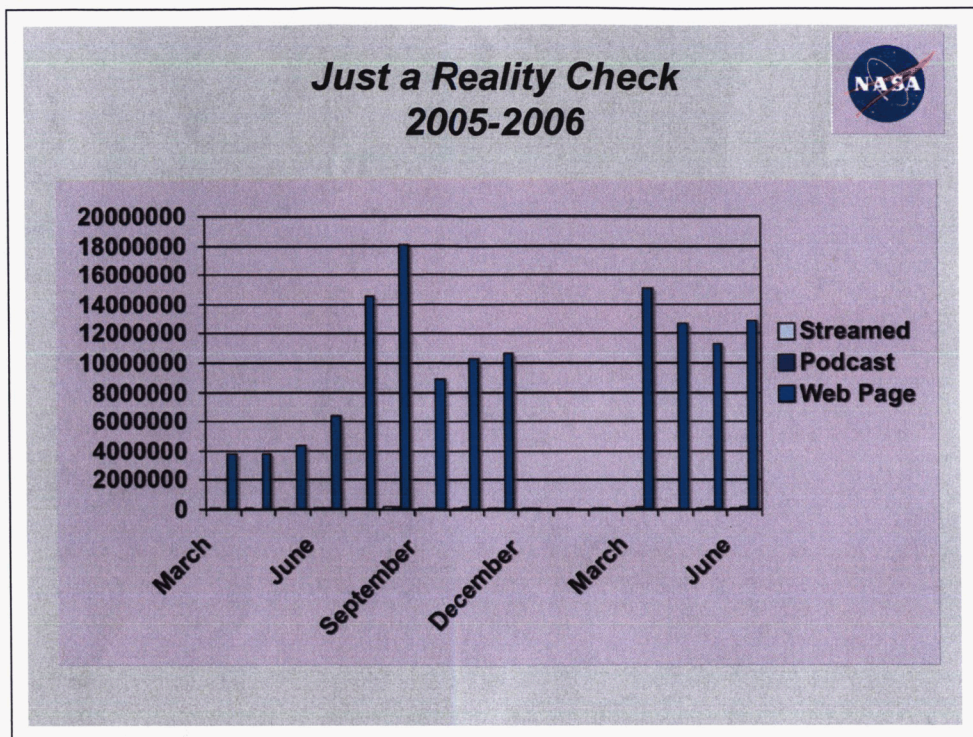


Statistics show downloads of audio files.

“Web” indicated that the audio was downloaded from the web site, rather than through the podcast feed.

Stats vary a lot by what is going on in space...





This compares downloads of the story web page to downloads of the audio. Web pages are still a much more popular way of getting content than podcasts.

The missing stats are exactly that. No web stats available for January - March.

## **NASA Affiliated Podcasts**



- Ask an Astronomer Videos
- Brain Bites Ask NASA
- Chandra Podcast
- Ciencia @ NASA
- NASA Astrobiology Magazine
- NASA's Jet Propulsion Laboratory Podcast
- NASA's Sun-Earth Connection Education Forum
- NASACast & NASACast Video
- PlanetQuest - the Search for Another Earth
- Robotics Alliance F.I.R.S.T Competition
- Science @ NASA Feature Stories Podcast
- Skywatch
- Spitzer Space Telescope Podcasts
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From the National Aeronautics and Space Act of 1958

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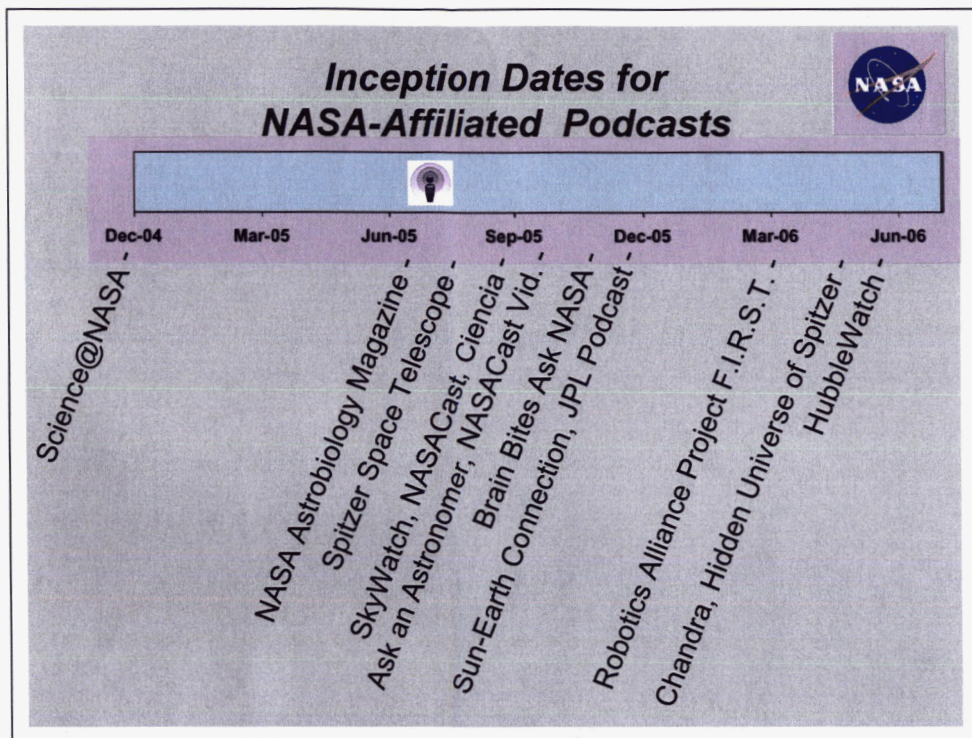
How does podcasting fit in with your organization's goals?

Part of NASA's job is explaining what it does and what it learns to the public. That is a common thread through all the podcasts.

How do you market your podcasts?

We market our podcasts through our own web sites, and through registration in iTunes Music Store and other podcast directories.





Who is your target audience?

Since iTunes Music store started supporting podcasts, they have sprung up throughout NASA, with significant differences in approach, target audience, and results.

Some of the NASA podcasts are aimed at the general public, others are more "long tail".

## ***What's Different About Federal Podcasts?***



- Section 508, FISMA, COPPA, Privacy Act, etc.
- No advertising
- No copyright, DRM issues

Were there any organizational hurdles to overcome?

There are some specific Federal hurdles. Here are a few:

Section 508 of the US Rehabilitation Act decrees accessibility for content. So all government podcasts must have a transcript available.

Federal Information Security Management Act (FISMA) specifies rafts of security, documentation for all government computers.

Children's Online Privacy Protection Act (COPPA)

Privacy Act

Etc.

Can't advertise, or receive funding by selling advertising. So, popularity results in cost, not income

All available content is free to the public (unlike most music, for instance).



## ***NASACast and NASACast Video***



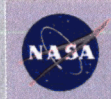
- Aimed at General Public
- Wide topic range
- *This Week at NASA*, an existing video product, is the core content
- High production value for video content
- Audio track stands alone well, but not perfectly
- Video is more popular of two versions
- Produced by NASA Public Affairs
- Samples: [TWAN](#), [other](#)

How do you market your podcasts?

Who is your target audience?

This is our most general podcast family, targeted at the general public, with a wide range of topics.

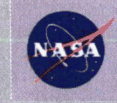
## ***Ask an Astronomer***



- Aimed at General Public, though leaning toward science-attentive public
- Reuse of existing video content
- Narrower topic area than NASACast
- Moderate production values
- Produced by Spitzer Space Telescope public affairs team
- [Sample](#)

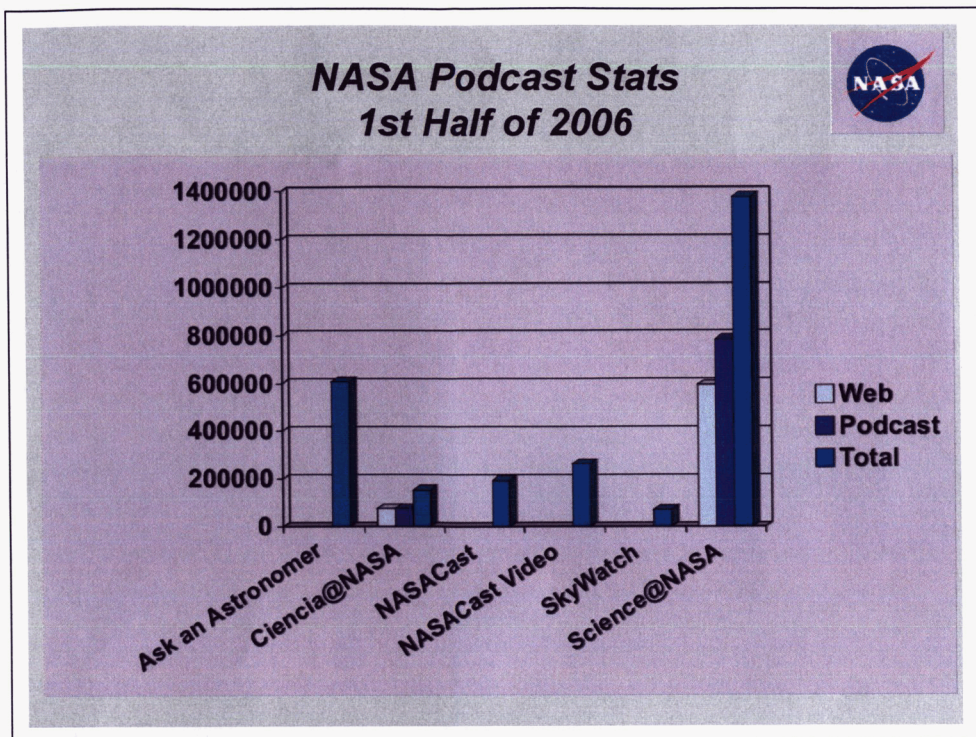


## ***SkyWatch and HubbleWatch***



- Reuse of audio produced as an NPR radio vignette by WYPR in Baltimore.
- Presented on Space Telescope Science Institute web site
- “Bonus” HubbleWatch podcasts added to feed in June
- [Sample](#)

HubbleWatch doesn't appear on radio, created exclusively for podcast



Stats based on downloads of media files.

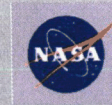


***Spitzer Space Telescope Podcast &  
Hidden Universe of the Spitzer Space  
Telescope***



- SSTP was first NASA podcast with content specifically designed as a podcast
- Low volume of content: about two episodes per month for SSTP, one for HUSST
- High production value
- Narrow topic focus, more technical
- Samples: [SSTP](#), [HUSST](#)

## ***Moribund Podcasts***

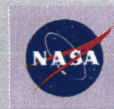


- NASA Astrobiology Magazine
  - Was completely automated
  - Computer voiced
  - Will be reborn as custom podcast with Dr. Simon Mitton
  - Samples: [old format](#), [new format](#)
- Traditions of the Sun
  - Used available video
  - Released without intent to continue
- W. M. Keck Observatory

Some podcasts are no longer producing new episodes.



## ***Lesson Learned from NASA Podcasts***



- Each episode needs to have metadata (ID3 tags)
- Each episode should have a unique name (don't call them all story.mp3!)
- You have to register in the directories to be found
- iTunes is the 2000 lb gorilla of podcasting
- Podcasts take more bandwidth than html
- Validate your RSS feed: <http://feedvalidator.org> is good.
- Using HTML in your description tags is a kludge, but is probably more good than bad.

What has been the impact of podcasting on your organization?

Minor impact on NASA

What is some of the feedback you have heard about the podcasts?

Mostly positive

What are some unintended or unanticipated results of your podcasting efforts?

Video seems to be more popular than audio. Has worked out as easier for NASA, too, because of our traditional work flows.

What are some tips or advice for producing podcasts?



## *Podcasting URLs*



- Science@NASA Podcast  
<http://science.nasa.gov/podcast.xml>
- Podcasting News Top Hits  
<http://www.podcastingnews.com>
- How to Build a Podcast  
<http://radio.about.com/od/podcastin1/a/aa030805a.htm>
- Validate a Podcast  
<http://www.allpodcasts.com/Tools/RSSValidator.aspx>

Extra slide

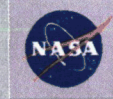
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